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TESTIMONIES

COMMUNICATED

BY VARIOUS PERSONS IN FAVOR
OF THE EXPANSION SHOE.

LONDON:

PRINTED FOR THE EDITOR,

BY C. RICHARDS, 100, ST. MARTIN'S LANE, CHARING CROSS,

AND SOLD BY T. & G. UNDERWOOD, FLEET STREET.

1828.

[Entered at Stationers' Hall.]

ADDRESS TO THE PUBLIC.

THESE Testimonies are brought forward in order to convince the public of the practicability and pre-eminent advantages of the new system of Expansion Shoeing. One would suppose that so obvious an improvement in the shoeing of horses, would have hardly needed any testimony in its support, being so very natural when shown and explained; it has met however such unreasonable resistance from persons interested in suppressing it, and others whose opposition is almost unaccountable, that the Author has thought proper to adopt this course, in order to remove all doubt from the minds of those who are looking on with unprejudiced eyes and wishing to be satisfied of its value and utility.

There is one circumstance to be remarked in making these testimonies public, that we are obliged to give them as we find them, with all the ideas their separate writers entertained; some of which as they certainly militate against the author's own reasonings, he does not consider himself at all answerable for, every individual viewing the subject in a somewhat different light, of course is alone responsible for his own peculiar views. The parties who supplied them are above all suspicion of collusion, men of sense, education, and stability, that would not easily be deceived, and whose suffrages could not be purchased.

The Inventor of the Shoe has no patent rights to serve in pressing it upon the public, or hopes of obtaining any pecuniary benefit, the discovery has only been to him from its commencement a source of heavy expence without profit, but this has never been his object, and in refusing, contrary to the solicitations of his friends to take out a patent, he was actuated solely by a wish that the public and the horses should derive the fullest advantage from so important a discovery. But it has been

this horse had been shod upwards of eighteen months in the common way, and that contraction had evidently begun. Since I have resided here I have invariably used, and with success, the Jointed Shoe!—one instance is within the reach of your knowledge, my friend;—it is of a young mare I purchased, that had never been shod, and which I broke in myself for my worthy friend Joseph Wassell, No. 9, Pickett Street, Temple Bar, where she may be seen;—she has never been shod in any other method than jointed shoes.

And believe me always, your sincere Friend,

JOHN HALL.

Bristol, December 26, 1819.

MY DEAR SIR,

Having made a trial of the EXPANSION SHOE, recommended in your *Stereoplea*, upon a mare that became an early cripple, I shall have much pleasure in communicating to you the result of its operation, and I believe the best will be to inform you under what circumstances it was applied. The animal was pretty well bred and shod the day on which she completed her fourth year, with the first expansion shoes, and having been shod at the same forge, before the third year of her being in use, she began to go near the ground and tender, so much so, that riding her became unsafe. She was broke into harness, which rendered her rather more useful for a short time, but she soon became lame, and was obliged to be turned out; and in her coming into use again, her paces were crippling and bad. About this time I obtained from you some shoes with the rivet head, and applied them—the effect was instantaneous; instead of walking in a gig down many of our steep hills at the rate of two miles an hour, as she had been accustomed to do, her pace was increased to the rate of five miles, and with the greatest safety, and there is great reason to believe she will be a very useful animal for some years, in consequence of this great discovery.

I am, dear Sir,

Your obliged Friend,

EDWARD SHEPPARD.

No. 19, Swithin's Lane,

November 18, 1819.

To Mr. BRACY CLARK.

DEAR SIR,

I have used your Joint Shoe upon the fore feet of my last two horses, and am certain they have proved of the greatest service in preventing contraction.

You are at perfect liberty to make use of this communication in any way you think proper.

I remain, Dear Sir,

Respectfully and truly yours,

JOSEPH TRAVERS.

TO MR. CHARLES CLARK, VETERINARY SURGEON.

33, Montague Square.

SIR,

I AM sorry to have delayed answering your note, having been much engaged in my professional occupations. I am happy, however, in the opportunity of bearing testimony to the advantages of the system of shoeing recommended by MR. BRACY CLARK. In examining the merits of any new system, it is often right to advert to the character of the individual who recommends it, and it is highly satisfactory, in this instance, to know that MR. CLARK possesses deep and most accurate knowledge of his art, both as to the anatomy and physiology of the horse, (more especially as regards the foot of the animal, the anatomy of which he has most happily elucidated); and also that he has an enlarged and cultivated mind, not liable to be swayed by prejudice, or to be blinded by theory. Although the evidence of an obscure individual can be of little weight in a subject of such important and extensive application, yet it may be satisfactory to those who are interested in the improved mode of shoeing, to know the extent of my experience in it.

I have at this moment a horse, which has been shod 7 years with the EXPANSION SHOE. I was driven to its employment by necessity; I have continued it from the strong conviction of its benefits. It is more than seven years ago that I purchased the horse to which I allude,—he was then four years old, had done no work, and had a colt's foot, as round and in as fine order as ever was seen. The work of the horse of a medical man in the country in good practice, is no trifle, and this animal had his full share of it. The smith I employed was one of those native talents whom we sometimes meet with—a good workman, who can apply a common shoe better than any man I have ever met with. My horse had not been worked more than six months, before he began to stumble and blunder—went tender on his fore feet, and at last was very near falling with me. I was convinced that the defect was not in the animal, but in the shoeing; and I consulted a Veterinary Surgeon, a pupil of the Veterinary College, and of considerable practice in Bristol. He assured me that the cause of the evil was corns; and he stated to me that corns were produced by improper pressure, and contraction of the foot. The treatment recommended was singular. He said that the best plan was to expand the heel, by putting on a bar shoe, which, by taking the bearing of the frog, would thus cause the frog to expand the heel of the foot. It is difficult to imagine how the foot of a horse can, by any possibility, be made to expand by nailing a ring of iron to it,—one would imagine that such treatment was the most certain possible way to prevent such an effect, and that it was most calculated to keep the walls of the hoof in one situation, without any possibility of their expansion,—yet the contrary is the idea which has obtained among the veterinary surgeons of the present day, and they have founded their practice upon it. Thus, Mr. Coleman's patent shoe is intended to take the pressure of the frog, and so to expand the foot, the frog being supposed to act as a wedge. The foundation of bad practice is defective physiology; and this idea of the use of the frog, has led to the worst results.

Although my horse was somewhat relieved, yet I was convinced, on reflection, that this treatment was by no means calculated to effect a radical cure, or to obviate the recurrence of similar evils. It was then that my attention was directed to the EXPANSION SHOE, recommended

by Mr. BRACY CLARK. The smith I employed was induced to take pains with it, and he made a very tolerable set of shoes, and has continued to make them for me ever since, till the last twelvemonths that I have been in London, or its neighbourhood. The advantages of this plan have been the following:—1st. The preventing the evil of corns; 2dly, the horse, although he has been worked night and day for seven years, has a foot as round as a colt, and as expansible at the heel as if a shoe had never been worn; 3dly, instead of being puffy and strained in the joints, he is as clean in the legs as a two year old. There has been no inflammation of the feet, the consequence of contraction, or of inflammation extending up the leg; but he is free from all the evils consequent upon long shoeing in the common way. 4thly, he steps flat and full on the ground, so that the sound of his foot is recognised by persons accustomed to him. 5thly, he does not know how to stumble.

I will conclude with two observations, the result of pretty extensive experience. 1st, That the frog of the horse is not destined to receive *primary* pressure, but only secondary pressure. When the foot expands, the frog comes to the ground; but if it receives the first impulse of the weight of the animal, inflammation and lameness is the consequence. 2dly, I believe corns are constantly produced by pressure on the bars, and that is caused by the shoes not being bevelled off at the heel, which they ought to be to the inside.

It is fair to add, that the mode in which my horse has been shod by your workmen at the forge in Gray's-inn-lane, has been perfectly satisfactory; and excepting once, when the shoe pressed on the bar of the foot, the horse has always gone with perfect ease and comfort.

I am, Sir,

Your obedient Servant,

J. C. COX, Surgeon, Montague Square.

Staines, 9th mo. 24th, 1827.

MY ESTEEMED FRIEND,

I fear that I have no sufficient apology to offer for my negligence in not sending some testimonial of my approbation of the EXPANSION SHOE, but I sent a message some weeks ago by our common friend Charles Trimmer, to say that I had been prevented from fulfilling the expectations that I gave thee, partly by numerous engagements, and partly by a dislike to enter into any controversy; and I feared that I should inevitably fall into the latter, through the warm interest which the *Lancet* takes in your invention, if I sent any account, however small, to the Editor of that very useful, though somewhat acrimonious work, of which I am a constant reader.

I certainly can have no objection to state that I have used the Expansion Shoes uninterruptedly for more than eight years; that I am fully convinced of their utility; that they have been the means of my continuing the use of two horses for several years, whose services would otherwise have been lost; and that I am persuaded, if prejudices could be got rid of, it would be regarded as the greatest improvement in shoeing the horse which has ever been proposed. But there are a few difficulties to surmount before it can be properly appreciated, and as these unfortunately occur, chiefly, on its first adoption, it demands a patient and unprejudiced mind to encounter them.

In the first place it requires considerable skill in the application of the shoe, to fix it firmly on the foot, without nailing it too deeply. If the former is not done the wall or crust will be apt to

split:—if the latter is done the horse will probably be lame from wound or improper pressure on the sensible part of the foot. But a good smith soon acquires the art of doing it properly and effectually, and I have now no more trouble than with common shoes. In the next place, if the rivet or rivets in the front of the shoe are not well made, and of tough iron, they are liable to break; and the shoe becoming loose on one or both sides, may hurt the opposite leg before it is discovered. But this never happens to my horses,* because the smith is aware of it, and takes care to prevent it, which is easily done, and wants nothing but attention. Again, as the front of the shoe, or tablet, is made of good steel, it wears so slowly that the shoes want to be removed, at least once, before they are worn out; and, not attending to this, the foot is apt to grow too long in front; and the sole sometimes becomes too thick, and occasions uneasiness to the horse, before it is thought of. This, however, it is clear that a *little* care will prevent. How it happens, in this enlightened age, that the advantages of the expansion shoe are not understood, or not profited by, has often surprized me. When the structure of the horse's foot is considered,—that it is altogether formed on a principle of elasticity; and that a free play of the parts is essential to preserve it in good health,—that the expanding property of the shoe allows of this play,—and that without this, or some similar contrivance, the foot of a *shod* horse must be immoveably fixed, and all such play prevented; it seems more befitting an age of ignorance than of knowledge to oppose the improvement because it does not emanate from the college. I have no doubt at all of the eventual success of the invention. If the English will not adopt it, foreigners will; and to them, and especially to the Americans, we must look for the unfettered employment of the improvements of others, and a large increase of inventions of their own;—the natural consequences of the emancipation of the mind from the influence of power, and prejudice, and narrow and exclusive interests.

Wishing thee success in thy undertaking to the full extent of thy wishes, I am, with kind regards to thy uncle Bracy Clark,

Thy sincere friend,
W. TOTHILL.

P.S. If this letter, or any part of it, will be of service in forwarding thy views, thou art at liberty to make use of it; only don't draw me into contention, which I detest.

Pangbourne, May 26th, 1822.

MY DEAR FRIEND,

I was in great hopes I should have had the pleasure of a letter from you when at Birmingham, or on your return: but suppose that constant attention in promoting the advancement of your invaluable system has prevented it. I should have written to you before now if I knew you were at home, but as you said you intended going to France on your return from the country, I was in doubt whether to write or not; but I have now something to communicate that I am sure will give my friend great pleasure, and therefore must immediately set about it; it is this following *triumphant fact!* A gentleman of the name of Jones, who travels for the house of Francis and Child, of Ludgate Hill, was staying a few days at Pangbourne. His mare, *natu-*

* Nor did it ever to my knowledge with any horse whatever, the shoulder preventing it. EDITOR.

rally a very good one, was very lame from "shoeing upon unnatural principles," and hearing that my little horse was shod in a manner different from the common mode, he obtained an interview with me through his lady, and upon my explaining to him the nature and elastic principle of the hoof, by means of your beautiful model, he was so convinced of the truth of the doctrine, and the advantages of the expansion shoes, that he was anxious to shoe his mare with them; fortunately I had by me the pair of shoes made by you for Shackel's horse, which had not been put on as he had bad corns, and I did not like to risk their credit with him; they exactly fitted the mare, and were applied on Monday the 13th. The next afternoon he took her out in the chaise for the first time, and on his return he came to our house a good deal alarmed, as he said the mare was so lame he had the greatest difficulty in keeping her on her legs, and wished to have the shoes off; but I dissuaded him, and assured him it was merely from the new situation the feet were in, and that they would adapt themselves to the shoes; he requested me to take a ride with him the next day, as he was going to Oxford on his journey,—to which I agreed. We set off about twelve from here, dined at Wallingford, proceeded on to Oxford, baited, went on to Islip, where he did business, then on to Bleckington, where he had business, and then to Woodstock, where we arrived about ten at night, a distance of forty miles, and which the mare performed with apparent ease. I drove her myself the whole way, and although so lame the day before, she hardly even limped or tripped once. Mr. Jones, I need not add, was most agreeably surprized. Next morning I drove to Oxford in less than fifty minutes, and returned by the Dart, Reading and Oxford coach, leaving him to perform his journey in excellent spirits towards London. You may very well imagine I was much delighted at witnessing the improvement in his mare, but that was much increased upon receiving from him, yesterday the following note.

"Mr. W. H. Bazing.

"London, May 28, 1822.

"RESPECTED SIR,

"You will undoubtedly pardon my freedom in writing for your satisfaction, as well as my own,—through taking your kind as well as friendly advice, which I shall ever feel in gratitude particularly obliged for. The mare being shod by Mr. B. CLARK'S EXPANSION SHOE, improved daily, and felt much less of the lameness, insomuch that I extended my journey further than I intended, and was home in London on Sunday morning last; instead of that I did not anticipate reaching town till Tuesday evening or Wednesday. When I left you at Oxford on Thursday last, we plainly perceived the mare went much better the short time we were together; but that was nothing to compare to what she performed the latter part of the journey, the distance being very far and the heat of weather all against her; but that seemed to make no sort of difference, as she went as light in hand as ever I have known her to do. I am just now going into Kent and Sussex with her, and have no doubt shall bring her home better than when I started, which result I will avail myself the opportunity of letting you know when I return, which will be, if *all's well*, in or about a fortnight's time. Please to accept my sincere thanks of gratitude, which I shall ever consider myself indebted to you for your polite attention towards me.

"I am, Sir, your's most respectfully,

"CALEB JONES."

Now this, my dear friend, is what I consider a triumph indeed; *lameness almost immediately relieved!!* and an *extended* journey performed in less time by two or three days, than the original

journey was set at ! If this will not convince even prejudiced minds, nothing will. I have now to request you to make two pair of shoes for a gentleman of the name of Dell, who lives at Reading, and has got a well-bred mare. From my explanation he is anxious to have her shod with Expansion Shoes, and I think her a fit subject for them, as she is but six years old, and shews no other symptom of pain from fetters, than going very much upon her toes. Please to send the shoes directed to me at the Broad Face, Reading, as soon as you can. I very much wish to see you. Can't you come for a day or two this summer ; it will afford us both, I trust, much gratification.

I remain your sincere friend,

W. H. BAZING.

P. S.—Five inches is the size of the mare's foot.

Hertford, July 30th, 1824.

MY DEAR FRIEND,

I am sorry that I have delayed so long writing to thee, on the subject of the jointed shoe, but several circumstances have occurred to prevent my sooner addressing thee. As I have used these shoes more than three years on one horse, thou wished me to give thee my opinion on this subject. In consequence of my conversing sometimes about shoeing, I have had opportunities of seeing several kinds, all of which I have been informed will prevent contraction, but these are evidently illusive ideas, as the shoes are formed of a solid ring, which, when fastened on a body capable of expanding and contracting must prevent its natural action. It is my decided opinion that contraction from shoeing cannot take place under the use of thy jointed shoe. My mare was five years old when I bought her, and of course had been shod some time, and, judging from the shape of the hoofs, contraction had already begun,—a pattern of the hoof was taken, and on comparing it with the hoof at the present time, no further contraction has occurred. I have generally used thy shoes, but when I have used the common kind, I find she does not step out so freely as when shod with the jointed. In the country I find some difficulty in having them put on properly, and unless the owner of the horse is present, a farrier will often use nails with too large a body, and thus endanger splitting the wall or perhaps cut the sole and frog, or with the view of increasing the beauty of nature, rasp away the external covering of the wall, which no doubt is as useful to the horse's foot as the cuticle is to the cutis in the human subject. Thy shoes wear much longer than the common shoe, and I particularly noticed how long the first pair lasted, which I think was three months, and then a fresh piece of steel was added to the toe, and they were worn one month longer. My mare treads remarkably even, which may in some measure account for the length of time.*

I am thy obliged friend,

RICHARD SHILLITOE.

* It has been this valuable property that has occasioned these shoes to be much abused. EDITOR.

MY DEAR FRIEND,

It is with pleasure that I bear testimony to the great advantages of the EXPANSION TABLET SHOE, having used it for about two years, till I lost the horse by an accident from the kick of another horse, and by which shoeing his feet and manner of going were improved in a remarkable degree.

ABRAHAM LINGHAM.

Edmonton, June 18, 1823.

THE TESTIMONY OF WM. SMITH, ESQ. REGENT'S PARK.

DEAR SIR,

I think it but justice to you to say, that my horse, a light cart horse, was dreadfully lame from ring bones, so much so, that I was inclined to sell him for any thing he would fetch. Since he has been shod with the EXPANSION SHOES, he has done his work remarkably well, without once being lame since he had them, and is to me a very useful horse, and is well worth £40. I have also shod a gig horse and a saddle horse with EXPANSION SHOES, with evident advantage to their going.

I am, dear Sir, with great respect,

Your's most truly,

W. SMITH.

TO CHARLES CLARK, SIDMOUTH MEWS, GRAY'S-INN LANE.

Coggeshall, 12th mo. 6th, 1827.

DEAR FRIEND,

For the last three years we have shod twenty horses, used in all capacities, somewhat upon the expansion system, so much and justly recommended by thy uncle BRACY CLARK. The shoe we use is but the common shoe in shape, nailed across the toe and *on one side only*, which not only admits of the natural expansion of the foot, but costs no more than the common shoe. By this system we have been enabled to use many horses, which by the usual mode of shoeing, had become so contracted in the feet as to be useless on the road. In consequence of our horses' feet doing so well under this system, many of our more enlightened neighbours have been induced to adopt it, and also very much approve the system; and at no distant period we do expect this mode of shoeing upon the principle of expansion must and will supersede all others. Any use thee or thy uncle may feel inclined to make of the above, will meet with my sanction.*

J. V. BRIGHTWEN.

* Having a professional call to Coggeshall on other business a few months ago, I visited this stable of horses, which are draft horses chiefly, used for carrying out the beer, and the round and beautiful form of their feet, the soundness of the frogs, not one being suffered ever to be cut, and their firm and wholesome appearance surpassed any thing I had ever before seen, and I believe may challenge the United Kingdom to show so uniformly at least, in all these respects, the like in a stable so numerous. EDIT.

MR. BLOXAM ON MR. BRACY CLARK'S PRINCIPLES OF VETERINARY SHOEING.

To the Editor of THE LANCET.

SIR,

From a fifteen years' intimate acquaintance with the doctrines and principles of Mr. BRACY CLARK, I feel perfectly justified in stating, that the views he has of the structure of the horse's foot, and of shoes suited to that structure, are perfectly correct, true, and necessary; and that time only, and more extended practice, (for reasoning there is none to oppose them,) are wanting, to make these principles generally admitted by the world. As far as army or regimental rules would permit, I have constantly adhered to this gentleman's directions in my practice, and can proudly say, in support of them, that in no regiment were the horses' feet in better condition than in the 1st Life Guards.

In order to prevent, in some degree, the mischievous consequences which inevitably result from the use of the common prison shoe, I have for many years caused the young horses under my care to be shod with small tips only, until four years old.

The EXPANSION SHOE, being a discovery of more recent date, is not yet introduced into the British Army; so that I can only bear this general testimony to the truth of those principles, which make such a mode of defence imperative to the perfect well-being of that beautiful and elastic organ, the horse's foot.

Your obedient Servant,

SAMUEL BLOXAM,

Thirty years Vet. Surgeon, 1st Life Guards.

TO BRACY CLARK, 7, TAUNTON PLACE, REGENT'S PARK.

Berkhampstead, 1st mo. 8th, 1824.

I suppose my friend Bracy Clark will be almost ready to think I have been unmindful of his kindness respecting my horse, but I can assure him that is not the case; I was desirous of ascertaining fully the utility of the expansion shoe, before I said much about it, and I think I may now state that with respect to my horse I have effectually proved their value, for before I used them I had almost made up my mind to destroy the horse, not liking to part with him, as being a valuable old servant, for I knew that if he was not fit for my service, which is a comparatively easy place for a horse, he would not be very suitable for any other; in this state I applied to thee as a last resource, and I am glad to find it has succeeded beyond my expectation; he now sets his feet firmly on the ground, and since the first day that he had the expansion shoe put on, I do not recollect that he has gone lame, but has continued to improve in going, and appears to go in every respect more pleasantly to himself and much more so to the driver. I have attended particularly to thy instructions respecting his hoofs, and have not had them pared since, and I doubt not they are much better for it.

I did not like to trouble thee with the shoe that broke, as my blacksmith's son (who is an ingenious young man) seemed to wish to repair it, and thought he could do it very well. I suffered him to undertake it, and I find he has done it very well; he has also made one on the expansion principle, which likewise answers the purpose very well, and he seems desirous of giving satisfaction therein.

I had intended to have been in town before this time, but my engagements have prevented me; when I come I intend giving thee a call, in the mean time, I remain

Thy sincere friend,

THOMAS SQUIRE.

Two years after I received the following note from the same gentleman :

Berkhampstead, 8th mo. 16th, 1826.

THOMAS SQUIRE will be obliged by his friend Bracy Clark furnishing him with two pair of shoes like the one sent, as he finds no other shoe will prevent his horse remaining lame.

36, Stamford St. Blackfriars, December 31, 1827.

DEAR SIR,

I feel happy in bearing testimony to the very great advantage of your expansion shoe, over that of the common one, which has been proved in the following instance. My thoroughbred horse, Napoleon, became very much contracted in the feet, in consequence of having been kept shod for two years and a half, (mostly in the stable) without being used, during the time that I was confined in Ilchester gaol; at this time he was rising six years old, and having done but very little work, in all other respects he was quite in his prime. Finding that from the numbness of his feet he became unsafe to ride, and unpleasant to drive, in consequence of very severe cutting, I was induced to send him always to the veterinary college to have him shod, still he got worse and worse, his fetlock joints became much enlarged and callous, from the constant battering of his feet against his legs, and in spite of the wadded boots which he constantly wore, he seldom returned from his work without his legs being in a gore of blood, and at length, by the *speedy cut*, he became so lame, as to be totally unfit for use; being a favorite, I sent him repeatedly to the veterinary college, where he remained for a month or six weeks at a time, without obtaining the desired relief, and Mr. Sewell recommended me to dispose of him as useless. Accident threw me in your way, and you recommended the expansion shoe, which was immediately tried with success; before he had worn the first set of shoes half out, he was so much relieved as entirely to get rid of the cutting. He has been now shod with your expansion shoe twelve months, during which time he has been in constant work in my vans over the stones in London, has never cut since, and is now as sound and with as good feet as he had when he was three years old, and instead of being totally useless, he is now, (solely owing to your shoeing) the most useful and valuable horse I have.

I am, dear Sir, yours very sincerely,

HENRY HUNT.

P. S. When I related this case to Mr. Sewell, he admitted that the expansion shoe was the perfection of shoeing, if it could be made to keep on as well as the common shoe. In this you have

now completely succeeded : since you have shod my horse I find the shoes remain on firm till they are worn out, although my horse goes over the stones of London, with a heavy load, four days in a week on an average, from twenty to thirty miles a day. The shoes he has on now, have been in wear upwards of five weeks.

To Mr. C. Clark, Sidmouth Mews, Gray's-inn-lane.

Besides the miserable consequences of the common shoe upon the foot, pointed out in my works, I am satisfied also that a very large share of the untowardness and vicious dispositions in horses, may be attributed to the miserable pains and condition of their feet, and what can be more natural than that continual suffering should produce such effects. The following extract of a letter not intended by the writer for publication, will confirm and illustrate this fact; it was written from Pangbourne, Sep. 6, 1821.

"When I last had the pleasure of your company, I mentioned to you that I was obliged to put a pair of fetters (that is common shoes) on my horse, from being out of the expansion shoes, and the following is the result of four or five days' wear, after which I went to London: great sluggishness and disinclination to travel, which was noticed both by my uncle and myself; and if forced by the whip to mend his pace, I observed the scapulæ to rise alternately above the withers, as if he intended to shift the weight of his body from his feet to his shoulder, but the mended pace almost immediately degenerated into a shuffling trot; he also went very much off his appetite, almost refusing both hay and corn; but which returned, without any administration of medicine, upon replacing the expansion shoes; whether the latter circumstance arose from pain in his feet, I am not able to determine, but my uncle witnessed it with myself.* Mrs. B. and my uncle present their best respects, and very sincerely, I remain

Your friend,

W. H. BAZING.

SIR,

Having a Gig-Horse much given to tripping, I was lately induced to make a trial of your EXPANSION SHOES, and I beg now (as an act of common justice) to offer my testimony of their superiority over those in common use. Though an aged horse, (and therefore not the best qualified to do justice to the invention,) he can now trot down hill with considerable ease and safety,—whereas before the above trial, it was scarcely prudent to trust him beyond a walk down even the smallest declivity. On level ground too he goes with much more freedom; and, what I think of some importance, his feet, after a moderate journey, are now cool and comfortable, instead of being hot and inflamed, as they used to be, under similar circumstances.

You are welcome to make what use you please of this communication from,

Sir, &c. &c.

H. J. HILL, *Great Portland Street.*

* My own mare I sold to a gentleman in 1820, in common shoes; she so tripped and tumbled with him, that he sent her back to me as too dangerous to ride. I had her shoes taken off, and Expansion Shoes put on; her manner of going was so improved, that it became delightful to ride her, and from a fretful, sour, unpleasant disposition, she became gay and cheerful. EDITOR.

Several of these cases, if they had been taken to our present Veterinary College, would have been pronounced *founded*, though only with simple contraction in a distressing degree, and then the abominable operation of nerving would have next been proposed for them, of which we shall have to give some day a more extended account.—It would not have been difficult to have produced more than double the number of these testimonies, if such proof was deemed necessary, but we believe they would rather encumber and tire, than assist in proving the utility of this discovery. If these proofs will not be received, neither will thousands;—thus we abstain, for the present at least, from further addition in this respect.

In order to bring these shoes, upon the new principle, within a moderate expence, (without which one could hardly hope for their being generally adopted,) a more than usual share of pains, labor, and expence, was used in finding out the readiest way of forming them from the bar iron, and of which process we propose to give an insulated account in the following subjoined essay, reserving nothing,—so that to the practical mechanic, who does not care much about elements or principles, this part of our essay will have the greatest interest,—and by which this desirable object has been so far obtained that many smiths could make them in a very little more time than in making the common circle shoe. Notwithstanding this however, I propose to conclude this account with observations on making them with the new nealed cast iron. At first we are aware a decided prejudice will obtain against this proposition, as was for some time our own feeling; but every well arranged experiment has served more and more to convince us of its practicability, and we entertain no doubt now on the subject.—(For I have understood he lost his patent rights through the interference of some Birmingham people.)—This new metal, or singular preparation of iron, I have been induced from justice to its patentee, the late *Samuel Lucas*, of Brampton, near Leeds, (who, if he was not the inventor, was probably the first who really understood its value sufficiently to induce him to take out a patent for it,) to call it the Brampton metal, to avoid circumlocution. It appears that this extraordinary product of cast iron, of which we shall give a more circumstantial account, is formed by exposing the metal to a high temperature, for a very long time, sometimes weeks, the air being cautiously excluded,—by which it is ridded of a numerous host of casual matters, with which it is combined;—as the *phosphurets*, *sulphurets*, and *silex*, and other admixtures; and is thereby brought into a very malleable and flexile state for things requiring simple wear; and, contrary to our belief, we have used it with general satisfaction, often finding that the shoes wear to the very last degree of thinness, without breaking, and which metal will ultimately bring them within the price of the common shoe; be this as it may, a paltry consideration in the price, for truly paltry it will be, will not, one should imagine, be a momentary consideration with a magnanimous nation, where so noble an object is at stake.

Any communication tending to confirm and encourage this new shoeing, or orders for shoes from persons desirous to take advantage of the present improved state of the art, may be addressd (post free) to my nephew, CHARLES CLARK, Sidmouth-mews, Gray's-inn-lane, nearly opposite Cubitt's extensive building premises, where they will be duly attended to. EDIT.

as before in a thinner stratum to the action of the fire. In this way, the vessel is not blacked at all or smoked, and being dried over the top of the stove is always found ready for use;—or a small black tin pot may be put into the stove itself, and the doors closed, when the hot boiling water is procured almost instantaneously. Fig. 5, is a tin vessel also to fix on the side of the stove, wide enough for boiling an egg or so, in the same way. We need not further dilate on the very extensive application of it in a culinary point of view, as these things will suggest themselves almost naturally to one who requires their use, as with the student of small means, or to the poor man of honest endeavours, and to whom economy may be imperative. The stout wire seen to pass horizontally through the top of the stove with a brass knob to it, will conveniently suspend a fowl or other matter requiring to be roasted.

For chemical or pharmaceutical purposes a hole in the side of the stove enables us to work a retort. A larger opening, as of 5 or 6 inches diameter in the closing plate at the top of the stove, enables use to use a sand or water bath. And placing over this same opening a metallic or earthen flat pan, we may conveniently carry on the process of solution, evaporation, desiccation, &c., or use a small Still or alembic, such as is employed for scented herbs. A crucible placed in the naked fire can be brought to an intense heat. In some of these processes, as that of evaporation, distillation, &c., the grate, which is easily removable, must be advanced nearer the vessels by suspension or by transverse wires or rods across the supra-focal chamber. Also from the iron lid covering this opening, when not used as above, having a knob near the centre, with a hook below the plate, can be suspended any subject within the stove at any distance from the fire by an iron wire or link.

On facility in lighting a fire.

IN cities and towns where wood is dear, the mode of lighting a fire is some consideration in the year's expenses: some servants very wastefully employing it, and others doing the same business as well with a very little; my way of doing it, which may, perhaps, easily be surpassed by the ingenuity and frequent practice of others,—and if not, my motto simply is, that of Horace, "*Si quid novisti, &c., his utere mecum*,"—I thrust a piece of paper downwards and through the bars, (having first cleared a couple of bars from fuel, so as to admit air freely through them, and thrown a few small bits of fresh coal upon them to get a flame from, these bits being surrounded with the rest of the least burnt cinders,) this paper being readily seen and lighted with a match or candle when wanted: I then place two or three pieces of paper again over the former piece, and over this lay a small handful of little twigs, of old basket, or of the usual deals reduced to thinness, and again on these lay a stouter piece or two to maintain the fire, and on these some coals piled round about, dust and nubbings mixed. I then set a light to the bit of paper under the grate, close the supra-focal door, and wait the event. If more expedition is wanted, close also, or nearly close, the focal door, which makes a rapid draught, and the unclosed door fans back the flame in a remarkable manner upon the fuel, and the ignition is then most rapid.



